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Form PTO-1449

Applicant: Badger et al.

Serial No.: 10/039,137

Filing Date: December 31, 2001

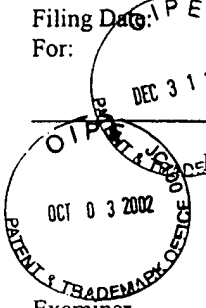
For:

METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED  
BIOREMEDIATION OF EXPLOSIVES

Att'y Docket No. 2411.3301.1US



Group: 3641

GROUP 3600



## INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANT

U.S. Patent Documents

Examiner Initial*	Document Number	Issue/Pub. Date	Name	Class	Sub Class	Filing Date	
	A1	4,826,601	05/02/89	Spratt et al.	210	610	08/01/86
	A2	4,919,813	04/24/90	Weaver	210	603	08/25/89
	A3	4,925,552	05/15/90	Bateson et al.	210	150	05/12/88
	A4	4,968,427	11/06/90	Glanser et al.	210	610	05/01/89
	A5	5,062,956	11/05/91	Lupton et al.	210	611	03/20/90
	A6	5,071,755	12/10/91	Nelson et al.	210	611	07/09/90
	A7	6,084,150	07/04/00	Crawford et al.	588	244	02/12/97
	A8	6,334,954	01/01/02	Crawford et al.	210	610	06/05/00
	A9	6,348,639	02/19/02	Crawford et al.	588	244	06/06/00
	A10	2002/0078849	06/27/02	Badger et al.			

Foreign Patent Documents

Examiner <u>Initial*</u>		<u>Document Number</u>	<u>Pub. Date</u>	<u>Country or Patent Office</u>	<u>Sub Class</u>	<u>Class</u>	<u>Trans- lation</u>
	A11	251,320	01/07/88	Europe	C02F	3/34	N/A
	A12	3,818,398	12/14/89	Germany	A01B	79/00	No
	A13	8,602,985	06/16/88	Netherlands	B09B	3/00	No
	A14	WO 91/15440	10/17/91	PCT	C05F	11/08	N/A
	A15	WO 95/01311	01/12/95	PCT	C02F	3/34	No
	A16	WO 95/03259	02/02/95	PCT	C05F	11/08	N/A

Examiner:

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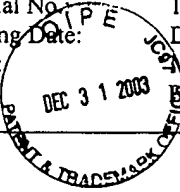
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- JP A17 Berry, D.F., et al., "Microbial Metabolism of Homocyclic and Heterocyclic Aromatic Compounds Under Anaerobic Conditions," 51(1) MICROBIOL. REV. 43-59 (Mar. 1987).
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- A26 Gottschalk, Gerhard, BACTERIAL METABOLISM 157-162 (2d ed. 1986).
- A27 Heinis, F.S., et al., "Verwijdering van Bodemverontreiniging," 39 PT/CIVIELE TECHNIEK 7-15 (1984).
- JP A28 Hallas, Laurence E., et al., "Microbial Transformation of Nitroaromatic Compounds in Sewage Effluent," 45(4) APPL. ENVIRON MICROBIOL. 1234-1241 (Apr. 1983).

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Examiner

Date Considered

\*EXAMINER: Initials of the examiner who has considered the application in accordance with MPEP 2101 are required. If not in conformance, the examiner must indicate the reason for non-compliance.

Group: 3641

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*continued . . .*

Peter A. Nelson

Date Considered \_\_\_\_\_

DET B 2002

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MILR-501. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Att'y Docket No. 2411.3301.1US

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JAN A40

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continued . . .

Examiner:

Peter A. Nelson

Date Considered:

Dec. 13, 2002

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Applicant:

Badger et al.

Att'y Docket No. 2411.3301.1US

Serial No.:

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For:

METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED  
BIOREMEDIATION OF EXPLOSIVESOther Documents (cont.)Examiner  
Initial\*

- JS A53 Tschach, Andreas, et al., "Methanogenic Degradation of Anthranilate (2-Aminobenzoate)," 11 SYSTEM. APPL. MICROBIOL. 9-12 (1988).
- A54 Vlassak, K., et al., "Dinoseb as a Specific Inhibitor of Nitrogen Fixation in Soil," 8 SOIL BIOL. BIOCHEM. 91-93 (1976).
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- JS A59 Ziegler, Klaus, et al., "Activation of Aromatic Acids and Aerobic 2-Aminobenzoate Metabolism in a Denitrifying *Pseudomonas* Strain," 151 ARCH. MICROBIOL. 171-176 (1989).

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While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

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Peter A. Nelson

Date Considered:

Dec. 13, 2002

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Att'y Docket No. 2411.3301.1US

Serial No.: 10/039,137

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For: METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED  
BIOREMEDIATION OF EXPLOSIVESINFORMATION DISCLOSURE CITATIONS MADE BY APPLICANTU.S. Patent Documents

Examiner Initial*	Patent Number	Issue Date	Name	Class	Sub Class	Filing Date	
<i>JP</i>	A1	2,330,110	09/21/43	Buchan	166	21	10/31/41
	A2	3,157,119	11/17/64	Porter	102	21.8	01/27/61
	A3	3,710,718	01/16/73	Grant	102	23	02/04/71
	A4	4,016,117	04/05/77	Griffin	260	17.4	04/05/97
	A5	4,044,684	08/30/77	Gaggini et al.	102	90	07/13/76
	A6	4,064,941	12/27/77	Smith	166	300	08/02/76
	A7	4,108,728	08/22/78	Spinner et al.	195	127	07/28/76
	A8	4,351,729	09/28/82	Witt	210	603	09/28/82
	A9	4,365,557	12/28/82	Couture et al.	102	341	09/22/80
	A10	4,845,034	07/04/89	Menger et al.	435	167	07/04/89
	A11	4,929,552	05/29/90	Gold et al.	435	128	05/29/90
	A12	4,961,381	10/09/90	McLaughlin	102	319	05/12/89
	A13	5,011,614	04/30/91	Gresser et al.	210	761	04/30/91
	A14	5,085,998	02/04/92	Lebron et al.	435	262	02/04/92
	A15	5,120,441	06/09/92	Jackson et al.	210	602	06/09/92
	A16	5,139,365	08/18/92	Chesner	405	129	08/18/92
	A17	5,139,776	08/18/92	Chazono et al.	424	92	02/03/89
	A18	5,296,146	03/22/94	Jackson et al.	210	602	03/22/94
	A19	5,302,285	04/12/94	Attaway et al.	210	605	09/20/93
<i>JP</i>	A20	5,314,821	05/24/94	Tyndall	435	252.1	02/28/94
<i>JP</i>	A21	5,370,845	12/06/94	Miller et al.	422	186.3	08/30/91

(continued)

Examiner:

*Peter A. Nelson*

Date Considered:

*Dec. 13, 2002*

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## U.S. Patent Documents (continued)

Examiner Initial*	Patent Number	Issue Date	Name	Class	Sub Class	Filing Date
<i>Jan</i>	A22	5,387,271	02/07/95	Crawford et al.	71 9	07/23/93
	A23	5,392,860	02/28/95	Ross	166 376	03/15/93
	A24	5,414,198	05/09/95	Brodman et al.	588 202	05/09/95
	A25	5,420,035	05/30/95	Tyndall	435 252.1	05/30/95
	A26	5,449,618	09/12/95	Tyndall et al.	435 262.5	09/12/95
	A27	5,455,173	10/03/95	Crawford et al.	435 264	04/18/94
	A28	5,478,743	12/26/95	Perkins et al.	435 262.5	12/26/95
	A29	5,484,730	01/16/96	Tyndall et al.	435 264	02/21/95
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	A31	5,518,919	05/21/96	Tyndall	435 262.5	02/15/95
	A32	5,543,324	08/06/96	Rajan	435 252.4	02/28/95
	A33	5,578,487	11/26/96	Tyndall	435 262.5	05/19/95
	A34	5,578,488	11/26/96	Tyndall et al.	435 262.5	09/05/95
	A35	5,593,888	01/14/97	Glaze et al.	435 262.5	04/05/94
	A36	5,610,062	03/11/97	Tyndall	435 252.4	05/19/95
	A37	5,616,162	04/01/97	Crawford et al.	71 9	10/20/95
	A38	5,711,020	01/20/98	Wolfe et al.	588 203	04/16/96
	A39	5,736,669	04/07/98	Thomas et al.	102 293	06/04/96
	A40	5,763,736	06/09/98	Daume	588 203	04/10/97
	A41	5,763,815	06/09/98	Thomas et al.	102 293	06/04/96
	A42	5,814,514	09/29/98	Steffan et al.	435 262	07/10/96
<i>Jan</i>	A43	5,849,984	12/15/98	Kim et al.	588 203	05/14/97

(continued)

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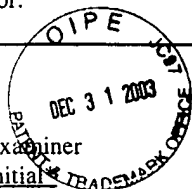


Sheet 3 of 4

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U.S. Patent Documents (continued)

Examiner Initial*	Patent Number	Issue Date	Name	Class	Sub Class	Filing Date
<i>Jem</i>	A44	6,051,420	04/18/00	Radtke et al.	435 262.5	05/20/98
—	A45	6,066,772	05/23/00	Hater et al.	588 202	08/28/98
—	A46	6,120,627	09/19/00	Badger et al.	149 108.8	10/18/96
<i>Jem</i>	A47	6,121,506	09/19/00	Abel et al.	588 200	06/10/99
<i>Jem</i>	A48	6,334,395	01/01/02	Badger et al.	102 293	05/30/97

Foreign Patent Documents

Examiner Initial*	Document Number	Publ. Date	Country or Patent Office	Class	Sub Class	Trans- lation
<i>Jem</i>	A49	512,660	11/11/92	Europe	A62D 3/00	Yes
—	A50	4,141,940	12/23/93	Germany	F42D 5/04	Yes
—	A51	1,396,372	06/04/75	Great Britain	C06B 31/00	N/A
<i>Jem</i>	A52	2,039,251	07/09/95	Russia	E21C 37/00	Yes

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Other Documents

(including author (if listed), title, relevant pages, date of publication including at least month and year).

- A53 Boopathy, R., et al., *Biological Transformation of 2,4,6-Trinitrotoluene (TNT) by Soil Bacteria Isolated from TNT-Contaminated Soil*, 47 Bioresource Technology 19 (1994).
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Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1", "A2", etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A", "B", "C", etc. on Office Action Form PTO-1142.

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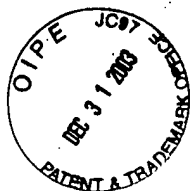
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Group: 3641

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Sheet 1 of 2

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## INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANT



## U.S. Patent Documents

-- none --

## Foreign Patent Documents

Examiner Initial*	Document Number	Pub. Date	Country or Patent Office	Sub Class	Class	Translation
<i>[Signature]</i>	A1	3,818,398	12/14/89	Germany	A01B 79/00	Yes
<i>[Signature]</i>	A2	8,602,985	06/16/88	Netherlands	B09B 3/00	Yes
<i>[Signature]</i>	A3	WO 95/01311	01/12/95	PCT	C02F 3/34	Yes

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A4

Heinis, F.S., et al., "Verwijdering van Bodemverontreiniging," 39 PT/CIVIELE TECHNIEK 7-15 (1984).

A5

Shieh, Chih-Shin, "Physical and Chemical Behavior of Stabilized Sewage Blocks in Seawater," 23(1) ENVIRON. SCI. TECHNOL. 121-125 (1989).

## References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will not consider citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines.

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Peter A. Nelson

Date Considered:

Dec 13 2002

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Form PTO-1449ion

Farrell G. Badger et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED  
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137  
 Of: Farrell G. Badger, et al.  
 Filing Date: December 31, 2001  
 Examiner: Peter A. Nelson  
 Art Unit: 3641

INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANTU.S. Patent Documents

<u>Examiner Initial*</u>	<u>Document Number</u>	<u>Issue Date</u>	<u>Name</u>	<u>Class</u>	<u>Sub Class</u>	<u>Filing Date</u>
_____ A1	2,330,110	09/21/43	Buchan	166	21	10/31/41
_____ A2	3,157,119	11/17/64	Porter	102	21.8	01/27/61
_____ A3	3,710,718	01/16/73	Grant	102	23	02/04/71
_____ A4	4,016,117	04/05/77	Griffin	260	17.4	11/25/74
_____ A5	4,044,684	08/30/77	Gaggini et al.	102	90	07/13/76
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_____ A7	4,108,728	08/22/78	Spinner et al.	195	127	07/28/76
_____ A8	4,351,729	09/28/82	Witt	210	603	02/06/80
_____ A9	4,365,557	12/28/82	Couture et al.	102	341	09/22/80
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_____ A12	4,919,813	04/24/90	Weaver	210	603	08/25/89
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_____ A16	4,968,427	11/06/90	Glanser et al.	210	610	05/01/89

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_____ A17	5,011,614	04/30/91	Gresser et al.	210	761	04/20/89
_____ A18	5,062,956	11/05/91	Lupton et al.	210	611	03/20/90
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_____ A20	5,085,998	02/04/92	Lebron et al.	435	262	05/07/91
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_____ A22	5,139,365	08/18/92	Chesner	405	129	09/04/90
_____ A23	5,139,776	08/18/92	Chazono et al.	424	92	02/03/89
_____ A24	5,296,146	03/22/94	Jackson et al.	210	602	06/08/92
_____ A25	5,302,285	04/12/94	Attaway et al.	210	605	09/20/93
_____ A26	5,314,821	05/24/94	Tyndall	435	252.1	02/01/93
_____ A27	5,370,845	12/06/94	Miller et al.	422	186.3	08/30/91
_____ A28	5,387,271	02/07/95	Crawford et al.	71	9	07/23/93
_____ A29	5,392,860	02/28/95	Ross	166	376	03/15/93
_____ A30	5,414,198	05/09/95	Broadman et al.	588	202	08/12/94
_____ A31	5,420,035	05/30/95	Tyndall	435	252.1	02/28/94
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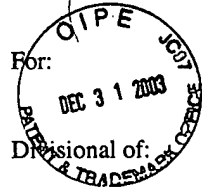
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_____ A34	5,478,743	12/26/95	Perkins et al.	435	262.5	03/11/94
_____ A35	5,484,730	01/16/96	Tyndall et al.	435	264	02/21/95
_____ A36	5,511,482	04/30/96	DiPietropolo	102	426	07/11/94
_____ A37	5,518,919	05/21/96	Tyndall	435	262.5	02/15/95
_____ A38	5,543,324	08/06/96	Rajan et al.	435	252.4	02/28/95
_____ A39	5,578,487	11/26/96	Tyndall	435	262.5	05/19/95
_____ A40	5,578,488	11/26/96	Tyndall et al.	435	262.5	11/26/96
_____ A41	5,593,888	01/14/97	Glaze et al.	435	262.5	04/05/94
_____ A42	5,610,062	03/11/97	Tyndall	435	252.4	05/19/95
_____ A43	5,616,162	04/01/97	Crawford et al.	71	9	10/20/95
_____ A44	5,711,020	01/20/98	Wolfe et al.	588	203	04/16/96
_____ A45	5,736,669	04/07/98	Thomas et al.	102	293	06/04/96
_____ A46	5,763,736	06/09/98	Daume	588	203	04/10/97
_____ A47	5,763,815	06/09/98	Thomas et al.	102	293	06/04/96
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_____ A50	5,928,859	07/27/99	Nicklin et al.	435	4	02/02/88
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_____ A56	6,274,368	08/14/01	Nicklin et al.	435	252.1	12/23/98
_____ A57	6,334,395	01/01/02	Badger et al.	102	292	05/30/97
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_____ A60	2002/0078849	06/27/02	Badger et al.	102	293	12/31/01

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DEC 31 2003  
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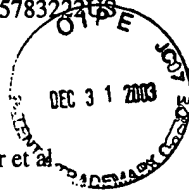
<u>Examiner Initial*</u>	<u>Document Number</u>	<u>Pub. Date</u>	<u>Country or Patent Office</u>	<u>Sub Class</u>	<u>Class</u>	<u>Trans- lation</u>
_____ A61	251,320	01/07/88	Europe	C02F	3/34	N/A
_____ A62	512,660	11/11/92	Europe	A62D	3/00	Yes
_____ A63	3,818,398	12/14/89	Germany	A01B	79/00	Yes
_____ A64	4,141,940	12/23/93	Germany	F42D	5/04	Yes
_____ A65	1,396,372	06/04/75	Great Britain	C06B	31/00	N/A
_____ A66	8,602,985	06/16/88	Netherlands	B09B	3/00	Yes
_____ A67	WO 91/15440	10/17/91	PCT	C05F	11/08	N/A
_____ A68	WO 95/01311	01/12/95	PCT	C02F	3/34	Yes
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_____ A70	2,039,251	07/09/95	Russia	E21C	37/00	Yes

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Other Documents . . . continued

Examiner  
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Form PTO-144 on

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Other Documents . . . continued

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Other Documents . . . continued

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- \_\_\_\_\_ A115 Wallnöfer, P.R., et al., *Transformation of Dinitrophenol-Herbicides by Azotobacter Sp.*, 12 CHEMOSPHERE 967-972 (1978).
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- \_\_\_\_\_ A117 Zeyer, Josef, et al., *Degradation of o-Nitrophenol and m-Nitrophenol by a Pseudomonas putida*, 32(2) J. AGRIC. FOOD CHEM. 238-242 (1984).
- \_\_\_\_\_ A118 Ziegler, K., et al., *Studies on the Anaerobic Degradation of Benzoic Acid and 2-Aminobenzoic Acid by a Denitrifying Pseudomonas Strain*, 149 ARCH. MICROBIOL. 62-69 (1987).

continued . . .

Examiner:

Date Considered:

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449ion

Farrell G. Badger, et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED  
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137  
Of: Farrell G. Badger, et al.  
Filing Date: December 31, 2001  
Examiner: Peter A. Nelson  
Art Unit: 3641

Other Documents . . . continued

Examiner

Initial\*

\_\_\_\_\_ A119 Ziegler, Klaus, et al., *Activation of Aromatic Acids and Aerobic 2-Aminobenzoate Metabolism in a Denitrifying Pseudomonas Strain*, 151 ARCH. MICROBIOL. 171-176 (1989).

**References Cited by Applicants**

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

NA24113301.2us1449.doc

Examiner:

Date Considered:

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



EXPRESS MAIL LABEL NO. EV325783222US

PATENT APPLICATION  
Docket No.: 2411.3301.2US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Farrell G. Badger et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED  
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137  
Of: Farrell G. Badger, et al.  
Filing Date: December 31, 2001  
Examiner: Peter A. Nelson  
Art Unit: 3641

TRANSMITTAL FOR INFORMATION DISCLOSURE STATEMENT

Mail Stop: PATENT APPLICATION  
Commissioner for Patents  
United States Patent and Trademark Office  
P. O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Transmitted herewith pursuant to 37 C.F.R. § 1.97 for filing relative to the above-captioned United States patent application is an Information Disclosure Statement, which includes the following statements, if any, required variously by 37 C.F.R. § 1.98:

- ☐ Statement of relevance of selected cited references not in the English language which are not translated.
- ☐ Statement that selected cited references are substantially cumulative of an enclosed or previously submitted reference.
- ☒ Statement that selected cited references were previously cited by or submitted to the United States Patent and Trademark Office in a prior application which is relied upon for an earlier filing date under 35 U.S.C. § 120 or § 121.

A. Additional Materials Required Due to Content of Information Disclosure Statement

Transmitted are the following documents in addition to the Information Disclosure Statement as required variously under 37 C.F.R. § 1.98:

X Form PTO-1449 listing one hundred nineteen (119) references submitted for consideration.

\_\_\_ Copies of \_\_\_\_\_ (\_\_\_) of the references listed on the Form PTO-1449.

\_\_\_ Specimens constituting \_\_\_\_\_ (\_\_\_) of the references listed on the Form PTO-1449.

\_\_\_ English translations of \_\_\_\_\_ (\_\_\_) of the references listed on the Form PTO-1449 which are not in the English language.

X Copies of the following documents from the prosecution of the Parent Application:

X Sheets of Form PTO-1449 as follows:

X As initialed by the Examiner on December 13, 2002, listing references A1-A58;

X As initialed by the Examiner on December 13, 2002, listing references A1-A59; and

X As initialed by the Examiner on December 13, 2002, listing references A1-A5;

\_\_\_ Sheets of Form PTO-892 as follows:

\_\_\_ As mailed from the Patent Office on \_\_\_\_\_, listing references \_-\_; and

\_\_\_ As mailed from the Patent Office \_\_\_\_\_, listing references \_-\_. .



B. Additional Materials Required Due to Timing of Filing of Information Disclosure Statement

The transmitted Information Disclosure Statement is being filed within one (1) of the following four (4) time periods:

I.   X   Prior to the later of either three (3) months following the filing date or the mailing of a first Office Action. Accordingly, no materials other than those listed above are enclosed.

II.        Following the later of either three (3) months following the filing date or the mailing of a first Office Action, but before the mailing of a final Office Action or a Notice of Allowance. Accordingly, to secure consideration thereof, one (1) of the following is also enclosed or authorized:

       Promptness Certificate; or

       The submission fee set forth in 37 C.F.R. § 1.17 (p) in the amount of \$180.00 is one (1) of the following:

       Enclosed as Check No.           ; or

       To be paid from the deposit account of the undersigned as authorized in Section C below.

III.        After the mailing of a final Office Action or a Notice of Allowance, but before payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed or authorized:

       Promptness Certificate; and

       The petition fee set forth in 37 C.F.R. § 1.17(p) in the amount of \$180.00 is one (1) of the following:

       Enclosed as Check No.           ; or

       To be paid from the deposit account of the undersigned as authorized in Section C below.

IV. \_\_\_\_\_ After payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are enclosed or authorized:

\_\_\_\_\_ To withdraw the above-captioned application from issue, the following are enclosed:

\_\_\_\_\_ Petition to Withdraw from Issue; and

\_\_\_\_\_ The petition fee set forth in 37 C.F.R. § 1.17(i)(I) in the amount of \$130.00 is one (1) of the following:

\_\_\_\_\_ Enclosed as Check No. \_\_\_\_\_; or

\_\_\_\_\_ To be paid from the deposit account of the undersigned as authorized in Section C below.

\_\_\_\_\_ To proceed with further prosecution, the following are enclosed:

\_\_\_\_\_ Request for Continued Examination; and

\_\_\_\_\_ The fee for requesting continued examination set forth in 37 C.F.R. § 1.17(e) in the amount of \_\_\_\_\_ \$710.00 is one (1) of the following:

\_\_\_\_\_ Enclosed as Check No. \_\_\_\_\_; or

\_\_\_\_\_ To be paid from the deposit account of the undersigned as authorized in Section C below.

\_\_\_\_\_ The submission fee set forth in 37 C.F.R. § 1.17(p) in the amount of \$180.00 is one (1) of the following:

\_\_\_\_\_ Enclosed as Check No. \_\_\_\_\_; or

\_\_\_\_\_ To be paid from the deposit account of the undersigned as authorized in Section C below.

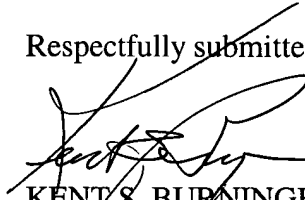
C. Fees

The Commissioner is hereby authorized to charge payment of or any deficiency in the following fees associated with this communication, or to credit any overpayment thereof, to Deposit Account No. 20-1469.

- X Any fee required in relation to filing of this letter or any documents transmitted therewith.
- \_\_\_ The submission fee set forth in 37 C.F.R. § 1.17(p) in the event that 37 C.F.R. § 1.97(c) applies and the Examiner is not satisfied that any Promptness Certificate submitted meets the requirements of 37 C.F.R. § 1.97(e)
- \_\_\_ The submission fee set forth in 37 C.F.R. § 1.17(p).
- \_\_\_ The petition fee set forth in 37 C.F.R. § 1.17(i)(I).
- X Copies in duplicate of this letter are enclosed.

DATED this 30<sup>th</sup> day of December, 2003.

Respectfully submitted,



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Docket: 2411.3301.2US

EXPRESS MAIL LABEL NO. EV325783222US

PATENT APPLICATION  
Docket No.: 2411.3301.2US



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: )  
)  
Farrell G. Badger et al. )  
)  
For: EXPLOSIVE DEVICE WITH ACCELERATED )  
BIOREMEDIATION CAPACITY )  
)  
Divisional of: )  
)  
Serial No.: 10/039,137 )  
Of: Farrell G. Badger, et al. )  
Filing Date: December 31, 2001 )  
Examiner: Peter A. Nelson )  
Art Unit: 3641 )

INFORMATION DISCLOSURE STATEMENT

Mail Stop: PATENT APPLICATION  
Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Pursuant to 37 C.F.R. §§1.97 and 1.98(a)(1), transmitted herewith is a Form PTO-1449 containing a list of all patents, publications, or other references that have come to the attention of one or more of the individuals identified in 37 C.F.R. §1.56(c). While no representation is made that any of these references may be "prior art" within the meaning of that term under 35 U.S.C. §102 or §103, the transmitted list of references is disclosed in compliance with the duty of disclosure set forth in 37 C.F.R. §1.56.

No representation is made that a specific search of office files or Patent Office records has been conducted, or that no better art exists. Nevertheless, the undersigned attorney of record believes that the transmitted references constitute art that is the closest to the claimed invention taken in its entirety of which the undersigned is presently aware, and no art which is closer to the claimed invention taken in its entirety has been knowingly withheld.

The references listed on the transmitted Form PTO-1449 are below classified for the convenience of the Examiner in the following category of references set forth for specific treatment in accordance with the subsections of 37 C.F.R. §1.98.

#### I. REFERENCES PREVIOUSLY DISCLOSED

The following references listed on the transmitted Form PTO-1449 were each previously submitted or cited by the United States Patent and Trademark Office in the prior prosecution of United States Patent Application Serial No. 10/039,137 filed on December 31, 2001 (hereinafter “the Parent Application”), which is relied upon by the present application for an earlier filing date under 35 U.S.C. § 121:

1. U.S. Patent Documents Previously Disclosed:

<u>Document No.</u>	<u>Issue Date</u>	<u>Patentee</u>
2,330,110	09/21/43	Buchan
3,157,119	11/17/64	Porter
3,710,718	01/16/73	Grant
4,016,117	04/05/77	Griffin
4,044,684	08/30/77	Gaggini et al.
4,064,941	12/27/77	Smith
4,108,728	08/22/78	Spinner et al.
4,351,729	09/28/82	Witt
4,365,557	12/28/82	Couture et al.
4,826,601	05/02/89	Spratt et al.
4,845,034	07/04/89	Menger et al.
4,919,813	04/24/90	Weaver
4,925,552	05/15/90	Bateson et al.
4,929,552	05/29/90	Gold et al.
4,961,381	10/09/90	McLaughlin
4,968,427	11/06/90	Glanser et al.
5,011,614	04/30/91	Gresser et al.
5,062,956	11/05/91	Lupton et al.
5,071,755	12/10/91	Nelson et al.

*continued . . .*

1. U.S. Patent Documents Previously Disclosed (*continued*)

<u>Document No.</u>	<u>Issue Date</u>	<u>Patentee</u>
5,085,998	02/04/92	Lebron et al.
5,120,441	06/09/92	Jackson et al.
5,139,365	08/18/92	Chesner
5,139,776	08/18/92	Chazono et al.
5,296,146	03/22/94	Jackson et al.
5,302,285	04/12/94	Attaway et al.
5,314,821	05/24/94	Tyndall
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5,387,271	02/07/95	Crawford et al.
5,392,860	02/28/95	Ross
5,414,198	05/09/95	Broadman et al.
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5,511,482	04/30/96	DiPietropolo
5,518,919	05/21/96	Tyndall
5,543,324	08/06/96	Rajan et al.

*continued . . .*

1. U.S. Patent Documents Previously Disclosed (*continued*)

<u>Document No.</u>	<u>Issue Date</u>	<u>Patentee</u>
5,578,487	11/26/96	Tyndall
5,578,488	11/26/96	Tyndall et al.
5,593,888	01/14/97	Glaze et al.
5,610,062	03/11/97	Tyndall
5,616,162	04/01/97	Crawford et al.
5,711,020	01/20/98	Wolfe et al.
5,736,669	04/07/98	Thomas et al.
5,763,736	06/09/98	Daume
5,763,815	06/09/98	Thomas et al.
5,814,514	09/29/98	Steffan et al.
5,849,984	12/15/98	Kim et al.
5,928,859	07/27/99	Nicklin et al.
6,051,420	04/18/00	Radtke et al.
6,066,772	05/23/00	Hater et al.
6,084,150	07/04/00	Crawford et al.
6,120,627	09/19/00	Badger et al.
6,121,506	09/19/00	Abel et al.
6,274,368	08/14/01	Nicklin et al.
6,334,395	01/01/02	Badger et al.

*continued . . .*



1. U.S. Patent Documents Previously Disclosed (*continued*)

<u>Document No.</u>	<u>Issue Date</u>	<u>Patentee</u>
6,334,954	01/01/02	Crawford et al.
6,348,639	02/19/02	Crawford et al.
2002/0078849	06/27/02	Badger et al.

2. Foreign Patent Documents Previously Disclosed:

<u>Country</u>	<u>Document Number</u>	<u>Date</u>
Europe	251,320	01/07/88
Europe	512,660	11/11/92
Germany	3,818,398	12/14/89
Germany	4,141,940	12/23/93
Great Britain	1,396,372	06/04/75
Netherlands	8,602,985	06/16/88
PCT	WO 91/15440	10/17/91
PCT	WO 95/01311	01/12/95
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Russia	2,039,251	07/09/95

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Goszczynski, Stefan, et al., *Isotopically Labelled Compounds for Hazardous Waste Site Cleanup Investigations: Part I. Synthesis of [phenyl-U-.sup.14 C] labelled 2,4-dinitro-6-sec-butylphenol (dinoseb) and [phenyl-U-.sup.14 C] labelled 4-n-propylphenol*, 24(1) J. LABELLED COMPOUNDS AND RADIOPHARMACEUTICALS 35-42 (1991).

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Kaake, Russell H. et al., *Bioremediation of Soils Contaminated with the Herbicide 2-sec-Butyl-4,6-Dinitrophenol (Dinoseb)*, 58(5) APPL. ENV. MICROBIOL. 1683-1689 (May 1992).

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Parris, George E., *Environmental and Metabolic Transformations of Primary Aromatic Amines and Related Compounds*, 76 RESIDUE REVIEWS 1-30 (1980).

Preuss, Andrea, et al., *Anaerobic transformation of 2,4,6-trinitrotoluene (TNT)*, 159 ARCH. MICROBIOL. 345-353 (1993).

Pumfrey, L., et al., *A Clostridium Species that Grows on 2,4,6-trinitrotoluene (TNT)*, in ABSTR. 93<sup>rd</sup> GEN. MEET. AM. SOC. MICROBIOL. 421, Abs. No. Q-414 (1993).

Rafii, Fatemeh, et al., *Reduction of Nitroaromatic Compounds by Anaerobic Bacteria Isolated from the Human Gastrointestinal Tract*, 57 APPL. ENVIRON. MICROBIOL. 962-968 (1991).

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3. Other References (continued)

- Schink, Bernard, *Principles and Limits of Anaerobic Degradation: Environmental and Technological Aspects*, in BIOLOGY OF ANAEROBIC MICROORGANISMS 771-846 (Zinder ed. 1988).
- Shieh, Chih-Shin, *Physical and Chemical Behavior of Stabilized Sewage Blocks in Seawater*, 23(1) ENVIRON. SCI. TECHNOL. 121-125 (1989).
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continued . . .

3. Other References (continued)

- Tratnyek, Paul G., et al., *Abiotic Reduction of Nitro Aromatic Pesticides in Anaerobic Laboratory Systems*, 37 J. AGRIC. FOOD CHEM. 248-254 (1989).
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- Wallnöfer, P.R., et al., *Transformation of Dinitrophenol-Herbicides by Azotobacter Sp.*, 12 CHEMOSPHERE 967-972 (1978).
- Yang, Yan-Xi, et al., *Bacteria Transforming 2,4,6-trinitrotoluene ( $\alpha$ -TNT) and Their Application*, in 92 CHEMICAL ABSTRACTS 375, Abs. No. 134719 (1980).
- Zeyer, Josef, et al., *Degradation of o-Nitrophenol and m-Nitrophenol by a Pseudomonas putida*, 32(2) J. AGRIC. FOOD CHEM. 238-242 (1984).
- Ziegler, K., et al., *Studies on the Anaerobic Degradation of Benzoic Acid and 2-Aminobenzoic Acid by a Denitrifying Pseudomonas Strain*, 149 ARCH. MICROBIOL. 62-69 (1987).
- Ziegler, Klaus, et al., *Activation of Aromatic Acids and Aerobic 2-Aminobenzoate Metabolism in a Denitrifying Pseudomonas Strain*, 151 ARCH. MICROBIOL. 171-176 (1989).

Pursuant to 37 C.F.R. §1.98(d), copies of the above-listed references are not included herewith. Nonetheless, if it would facilitate the convenience of the Examiner in the prosecution of the above-captioned new application, copies of all or any of the above-listed references will promptly be provided, by hand delivery, if desired upon a telephonic request for such made by the Examiner to the undersigned at any of the telephone numbers listed below the signature thereof on the last page of this document. The references can be provided individually or collectively in a tabulated looseleaf notebook with a correlating table of contents.

Pursuant to Manual of Patent Examining Procedure (M.P.E.P.) § 2001.06(b), the Examiner is respectfully requested to state in the record that each of the above-listed references have been considered in the present prosecution.

For convenience, copies of each of the following three (3) forms from the prosecution of the Parent Application are enclosed:

1. Form PTO-1449 listing references A1-A58 initialed by the Examiner on  
December 13, 2002 (3 pages);
2. Form PTO-1449 listing references A1-A59 initialed by the Examiner on  
December 13, 2002 (1 page); and
3. Form PTO-1449 listing references A1-A5 initialed by the Examiner on  
December 13, 2002 (1 page).

DATED this 30<sup>th</sup> day of December, 2003.

Respectfully submitted,



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